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ABSTRACT

This summary of Dearborn high school student performance on four achievement tests of the American College Testing Program (ACT) presents data for 768 junior and senior students who took the test during the 1981-82 school year. The ACT mean composite score for Dearborn students continues to be above the national norm. Students scored consistently above the national norm on the mathematics, social studies, and natural science tests, but their mean score on the English Usage Test was below the national norm for the third consecutive year. Mean scores of males on the English test showed a gain of +0.1 points over the nation norm, while females showed a gain of -0.7 points. Overall, the ACT results along with current Scholastic Aptitude Test (SAT) scores show that Dearborn college-bound students, while having some difficulty in English, score high academically and above the national norm. Data from the ACT High School Profile are summarized in the Appendix. (LC)

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BULLETIN NO. 1210 Dr. Douglas B. Lund, Superintendent September 16, 1982

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SUMMARY OF THE 1981-82 DEARBORN STUDENTS ON THE AMERICAN COLLEGE TESTS (ACT)

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THE AMERICAN COLLEGE TEST (ACT)

DESCRIPTION OF THE ACT

The American College Test (ACT), administered to some 804,520 college-bound students in 1981-82, measures English usage, mathematical usage, social studies and the natural sciences. An average of the four tests provides a Composite score. Standard scores on the ACT range from a low of 1 to a high of 36.

The national norms represent a ten-percent sample of all students who complete the ACT assessment during the 1981-82 test year.

In addition to the measurement in four basic content areas, an ACT High School Profile is prepared reporting a broad range of educational and social characteristics of the students.

The ACT test items require students to demonstrate problem solving and reasoning abilities. Recognizing basic elements of correct and effective writing, drawing inferences and conclusions, reasoning in a quantitative context and calculating, interpreting and evaluating data, and recalling general knowledge acquired in high school courses in the four basic areas are among the skills measured by the ACT test.

According to the Research and Development Division of ACT, the ACT tests have been found to be relatively good predictors of students' academic success in college. Moreover, the ACT Assessment provides reliable information on a high school's college-bound students and to examine the students' perceptions about their high school and the education it provides.

DESCRIPTION OF THE ACHIEVEMENT TESTS

The English Usage Test measures the student's understanding and use of the basic elements in correct and effective writing which includes punctuation, capitalization, usage, phraseology, style, and organization.

The Mathematics Usage Test emphasized reasoning in a quantitative context in practical verbal problems and formal exercises in arithmetic, algebra, and geometry.

The Social Studies Reading Test measures the evaluative reasoning and problem-solving skills required in social studies. Of the two types of items, the first is based upon reading passages. The second type pertains to general information obtained normally found in high school social studies courses.

The Natural Sciences Reading Test requires a student to interpret and evaluate scientific topics and problems. The test assesses the student's ability to understand the purposes of experiments to make logical relations between experimental hypotheses, and to draw generalizations from results of experiments. Arithmetic computation and algebra are not emphasized.

NUMBER AND PERCENTAGE OF DEARBORN STUDENTS TAKING THE ACT

The number of Dearborn 1981-82 students taking the ACT was 768 or 62 percent of the grade twelve enrollment. Over the past eight years the annual number of students have declined from 1058 to 768. Dearborn females outnumber males from 398 to 370. The percent of students taking the ACT compared to the grade twelve enrollment has reanged from a low of 44% in 1975-76 to a high of 70% in 1980-81. Refer to Table I.

Last year seventy-one percent of the Dearborn students were high school juniors and twenty-eight percent were seniors when they took the ACT. This is typical of Dearborn students that take the ACT each year. Nationally the reverse is true. Thirty-eight percent were juniors and fifty-nine percent were seniors. This should be considered when making comparisons with the national norms.

As is true with SAT scores, the ACT is not designed to measure the effectiveness of high school education and the students who voluntarily take the ACT are not necessarily representative of the entire grade twelve student population.

TABLE I

NUMBER AND PERCENTAGE OF DEARBORN STUDENTS TAKING THE AMERICAN COLLEGE TEST (ACT)

YEAR	MALE	FEMALE	TOTAL	PERCENT OF GRADE 12 ENROLLMENT
1973-74	496	562	1058	59%
1974-75	545	504	1049	63%
1975-76	413	437	850	44%
1976-77	479	516	995	59%
1978-79	425	407	832	54%
1979-80	421	445	866	61%
1980-81	472	457	929	70%
1981-82	370	398	768	62%

DEARBORN 1981-82 ACT ENGLISH MEAN SCORES

The mean scores for the 1981-82 Dearborn students was 17.5 compared to the national average score of 17.9. This is the third consecutive year in which Dearborn students mean scores were not above the national norm. Dearborn females continue to score higher than males with scores of 17.7 and 17.4, respectively, following the national trends in this respect. Note however, that this year the Dearborn males English scores are +.1 above the male national norm while Dearborn female scores are -.7 compared to the female national norm. The opposite was true in 1980-81. Refer to tables II, III, and IV.

TABLE II

AMERICAN COLLEGE TEST RESULTS

1973-74 through 1981-82 School Year

MALE AND FEMALE COMBINED TOTALS

MEAN STANDARD SCORES

	YEAR 1973-74	YEAR 1974-75	YEAR 1975-76	YEAR 1976-77	YEAR 1978-79	YEAR 1979-80	YEAR 1980-81	YEAR 1981-82
ENGLISH								
Dearborn	18.9	18.1	18.0	18.4	18.3	17.8	17.7	17.5
National	17.9	17.7	17.5	17.7	17.9	17.9	17.8	17.9
Gain	+1.0	+ .4	+ .5	+ .7	+ .4	- .1	- .1	- .4
MATHEMATICS								
Dearborn	19.8	19.1	18.5	19.6	19.6	19.0	18.6	18.2
National	18.3	17.6	17.5	17.4	17.5	17.4	17.3	17.2
Gain	+1.5	+1.5	+1.0	+2.2	+2.1	+1.6	+1.3	+1.0
SOCIAL STUDIES								
Dearborn	19.6	18.6	17.7	18.8	18.5	18.6	18.3	17.5
National	18.1	17.4	17.0	17.3	17.2	17.2	17.2	17.3
Gain	+1.5	+1.2	+ .7	+1.5	+1.3	+1.4	+1.1	+ .2
NATURAL SCIENCE								
Dearborn	22.2	22.7	21.9	22.4	22.2	22.6	21.9	21.9
National	20.8	21.1	20.8	20.9	21.1	21.1	21.0	20.8
Gain	+1.4	+1.6	+1.1	+1.5	+1.1	+1.5	+ .9	+1.1
COMPOSITE								
Dearborn	20.3	19.8	19.1	19.9	19.8	19.6	19.3	18.9
National	18.9	18.6	18.3	18.4	18.6	18.5	18.5	18.4
Gain	+1.4	+1.2	+ .8	+1.5	+1.2	+1.1	+ .8	+ .5
Number =	1058	1049	850	995	832	866	929	768

TABLE III

AMERICAN COLLEGE TEST RESULTS

1973-74 through 1981-82 School Year

MALE

MEAN STANDARD SCORES

	YEAR 1973-74	YEAR 1974-75	YEAR 1975-76	YEAR 1976-77	YEAR 1978-79	YEAR 1979-80	YEAR 1980-81	YEAR 1981-82
ENGLISH								
Dearborn	17.9	17.2	17.0	17.4	17.9	16.8	17.0	17.4
National	17.1	17.1	16.8	17.0	17.4	17.3	17.3	17.3
Gain	+ .8	+ .1	+ .2	+ .5	+ .5	- .5	- .3	+ .1
MATHEMATICS								
Dearborn	21.5	20.4	20.3	20.8	20.9	20.0	20.1	20.3
National	19.7	19.3	19.2	18.9	19.1	18.9	18.9	18.6
Gain	+1.8	+1.1	+1.1	+1.9	+1.8	+1.1	+1.2	+1.7
SOCIAL STUDIES								
Dearborn	20.6	19.5	18.3	19.8	19.5	19.1	18.9	18.7
National	19.1	18.7	17.9	18.2	18.1	18.2	18.3	18.1
Gain	+1.5	+ .8	+ .4	+1.6	+1.4	+ .9	+ .6	+ .6
NATURAL SCIENCE								
Dearborn	23.7	23.7	22.6	23.5	23.3	23.6	22.9	23.5
National	22.2	22.4	22.0	22.3	22.3	22.4	22.3	22.2
Gain	+1.5	+1.3	+ .6	+1.2	+1.0	+1.2	+ .6	+1.3
COMPOSITE								
Dearborn	21.0	20.3	19.6	20.4	20.5	20.0	19.9	20.1
National	19.7	19.5	19.1	19.2	19.3	19.3	19.3	19.2
Gain	+1.3	+ .8	+ .5	+1.2	+1.2	+ .7	+ .6	+ .9
Number =	496	545	413	479	425	421	472	370

TABLE IV

AMERICAN COLLEGE TEST RESULTS

1973-74 through 1981-82 School Year

FEMALES

MEAN STANDARD SCORES

	YEAR 1973-74	YEAR 1974-75	YEAR 1975-76	YEAR 1976-77	YEAR 1978-79	YEAR 1979-80	YEAR 1980-81	YEAR 1981-82
ENGLISH								
Dearborn	19.8	19.1	18.9	19.4	18.7	18.8	18.4	17.7
National	18.6	18.3	18.0	18.2	18.4	18.3	18.2	18.4
Gain	+1.2	+ .8	+ .9	+1.2	+ .3	+ .5	+ .2	- .7
MATHEMATICS								
Dearborn	18.3	17.9	17.0	18.1	18.2	18.0	17.1	16.3
National	17.1	16.2	16.0	16.1	16.2	16.2	16.0	16.0
Gain	+1.2	+1.7	+1.0	+2.0	+2.0	+1.8	+1.1	+ .3
SOCIAL STUDIES								
Dearborn	19.0	17.8	17.1	18.4	17.5	18.1	17.7	16.5
National	17.3	16.4	16.2	16.5	16.4	16.4	16.4	16.6
Gain	+1.7	+1.4	+ .9	+1.9	+1.1	+1.7	+1.3	- .1
NATURAL SCIENCE								
Dearborn	21.0	21.7	21.3	21.4	21.2	21.7	21.0	20.5
National	19.6	20.0	19.7	19.6	20.2	20.0	20.0	19.7
Gain	+1.4	+1.7	+1.6	+1.8	+1.0	+1.7	+1.0	+ .8
COMPOSITE								
Dearborn	19.7	19.2	18.6	19.4	19.0	19.2	18.7	17.8
National	18.2	17.8	17.6	17.8	17.9	17.9	17.8	17.8
Gain	+1.5	+1.4	+1.0	+1.6	+1.1	+1.3	+ .9	+ .0
Number =	562	504	437	516	407	445	457	398

DEARBORN 1981-82 ACT MATHEMATICS MEAN SCORES

The 1981-82 Dearborn mathematics mean score declined .4 points from last year to 18.2 as compared to the nation norm of 17.2 results in a gain of +1.0 points. Male mean mathematics scores are accelerated above the norm some +1.7 points.

DEARBORN 1981-82 ACT SOCIAL STUDIES MEAN SCORES

The mean social studies score for Dearborn students was 17.5, a decline of 0.8 from last year, in 1981-82 and is accelerated over the national mean score only 0.2 points. Female social studies score of 16.5 is 0.1 point below the final national norm while the male score of 18.7 is accelerated +0.6 points.

DEARBORN 1981-82 ACT NATURAL SCIENCE MEAN SCORES

The 1981-82 mean ACT natural science score of 21.9 for Dearborn students is +1.1 points above the national norm of 20.8. This is the largest gain over the national norm for Dearborn students among the four tests. Dearborn male students show gains of +1.3 points and female students are accelerated +0.8 points.

DEARBORN 1981-82 ACT COMPOSITE MEAN SCORES

The ACT mean composite score (an average of English usage, mathematics usage, social studies, and natural science) of 18.9 for Dearborn students is accelerated above the national mean composite score of 18.4, or a gain of +0.5 points. This gain over the national norm is the smallest during the past eight years.

The 1981-82 male scores are higher than the females scores (20.1 and 17.8 respectively), and the gain over the national norm is +0.9 for the males and +0.0 for the females.

Since 1974-75 the Dearborn mean composite score has remained quite stable ranging between 18.9 and 20.3, while the national norm has ranged between 18.3 and 18.9. Overall Dearborn ACT composite scores has declined relative to the national norm for the four years.

ACT DEARBORN STUDENTS PROFILE

When the Dearborn students rated their high school education, 22% felt it was excellent, 50% felt it was good, 18% felt it was average, 3% felt it was below average, and 8% felt it was very inadequate. Refer to Table 5.1.

For various aspects of their high school, the percentages of students satisfied and dissatisfied, respectively, were as follows: Instruction - 61%, 14%; Course Offerings - 73%, 13%; Grading - 50%, 23%; Tests - 53%, 13%; Guidance - 61%, 19%; School Policies - 51%, 24%; Library Facilities- 66%, 8%; Laboratories - 53%, 17%; Special Need Assistance - 39%, 10%; Gifted Student Assistance - 56%, 8%; and Adequacy of Programs in Career Education and Planning - 53%, 18%. Refer to Table 5.2.

The typical student in this group had an ACT composite score of 18.9 (group mean) and a High School Average Grade Point Average of 2.8 (A=4.00, B=3.00). These compare to national average for college-bound students of 18.4 and 3.0, respectively.

Thirty-six percent of the Dearborn students were "very sure" of their educational major, while 45% were"fairly sure." Thirty percent were "very sure" of their first vocational choice and 47% were "fairly sure" as reported in Table 3.3.

Thirty-eight percent of the students aspired for a bachelor's degree while another 44% aspired to at least some graduate school or a professional degree as shown in Table 3.2. The most typically planned education major and first vocational choice were both Health Professions.

Other information provided by ACT show that the largest number of Dearborn graduates sent a transcript of their ACT scores to the Henry Ford Community College, followed by State Department of Education, University of Michigan-Dearborn, University of Michigan-Ann Arbor, Michigan State University, Wayne State University, and Central Michigan University. Concerning the college-choice factors the "most important" were: field of study, tuition cost and location. Twelve percent of the students planned to go to an out-of-state college.

SUMMARY

Dearborn's 1981-82 high school students scored consistently above the national norm in mathematics, social studies, natural science, and composte scores. Dearborn's students mean score in English was below the national norm for the third consecutive year. Dearborn's male English mean scores have a gain of +0.1 points while the female score shows a gain of -0.7 points.

Natural science score of 21.9 continues to be the highest mean score among the four tests along with its gain of +1.1 points over the national norm in the area of natural science.

Although the ACT results continue to be good overall, they represent only part of Dearborn's students as 768 students, (71% were juniors and 28% were seniors) were tested.

The 1981-82 Dearborn ACT mean composite score continues to be above the national norm with a gain of +0.5 points. These results along with the current SAT scores show that the Dearborn college-bound students, while having some difficulty in English, score high academically and above the national norm.

TABLE 1.6

DEARBORN STUDENTS TESTED 1981-82 SCHOOL YEAR

ACT HIGH SCHOOL PROFILE

DISTRIBUTIONS OF HIGH SCHOOL GRADES

Total Students	English Freq	%	Math Freq	%	Social Studies Freq	%	Natural Science Freq	%
A	162	22	122	16	218	29	178	24
B	361	48	251	34	316	42	266	36
C	201	27	234	31	164	22	198	27
D	24	3	80	11	37	5	38	5
F	2	0	3	0	2	0	3	0
Not Taken	1	0	58	8	16	2	52	7
Number of Students	751		748		753		735	
Mean	2.88		2.59		2.96		2.85	

TABLE 3.2

DEARBORN STUDENTS TESTED 1981-82 SCHOOL YEAR

ACT HIGH SCHOOL PROFILE

EDUCATIONAL DEGREE ASPIRATIONS

	Men Freq	%	Women Freq	%	Total Freq	%
Voc or Tech Program (less than two years)	6	2	7	2	13	2
Two-year college degree	34	9	66	17	100	13
Bachelor's degree	127	35	159	41	286	38
One or two years of grad study (MA, MBA, ETC.)	74	21	74	19	148	20
Professional level degree (Ph.D, MD, LLB, JD, etc.)	106	30	72	18	178	24
Other	11	3	12	3	23	3
Number of Students	358		390		748	
No Response	12		8		20	

TABLE 3.3

DEARBORN STUDENTS TESTED 1981-82 SCHOOL YEAR

ACT HIGH SCHOOL PROFILE

HOW SURE STUDENTS ARE OF THEIR PLANNED
EDUCATIONAL MAJOR AND FIRST VOCATIONAL CHOICE

	Men		Women		Total	
	Freq	%	Freq	%	Freq	%
Planned Educational Major						
Very Sure	130	36	145	37	275	36
Fairly Sure	170	47	172	44	342	45
Not Sure	62	17	76	19	138	18
Number of Students	362		393		775	
No Response	8		5		13	
First Vocational Choice						
Very Sure	107	30	116	30	223	30
Fairly Sure	174	48	179	46	353	47
Not Sure	81	22	97	25	178	24
Number of Students	362		392		754	
No Response	8		6		14	

TABLE 5.1

DEARBORN STUDENTS TESTED 1981-82 SCHOOL YEAR

ACT HIGH SCHOOL PROFILE

EXPRESSED ADEQUACY OF HS EDUCATION
ACCORDING TO HS CURRICULUM OR PROGRAM

Expressed Adequacy	Description of Curriculum: Business Commercial		Vocational Occupations		College Preparation		General or Other		Total	
	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
Excellent	10	12	14	14	123	28	15	13	162	22
Good	46	55	40	40	229	52	56	47	371	50
Average	15	18	32	32	46	10	38	32	131	18
Below Average	5	6	6	6	8	2	4	3	23	3
Very Inadequate	7	8	8	8	38	9	7	6	60	8
Number of Students	83		100		444		120		747	

TABLE 5.2

DEARBORN STUDENTS TESTED 1981-82 SCHOOL YEAR

ACT HIGH SCHOOL PROFILE

STUDENT SATISFACTION WITH VARIOUS
ASPECTS OF THE LOCAL HIGH SCHOOL

	Satisfied No Change Necessary		Pretty Much Neutral		Dissatisfied, Improvement Needed		No Experience	
	Freq	%	Freq	%	Freq	%	Freq	%
Classroom Insturction	459	61	190	25	106	14	2	0
No. & Variety of Course Offerings	550	73	105	14	101	13	0	0
Grading Practices & Policies	375	50	207	27	171	23	4	1
No & Kinds of Tests Given	400	53	257	34	99	13	1	0
Guidance Services	461	61	147	19	141	19	8	1
School Rules, Regulations, & Policies	385	51	186	25	180	24	4	1
Library or Learning Center	496	66	189	25	59	8	13	2
Laboratory Facilities	402	53	196	26	126	17	31	4
Provisions for Special Help in Reading, Math, etc.	298	39	159	21	78	10	220	29
Provisions for Academically Outstanding Students	423	56	151	20	59	8	123	16
Adequacy of Program in Career Education & Planning	403	53	188	25	139	18	25	3

Total Students in Report = 768